

# Installation Guide

*iPlanet Web Server, FastTrack Edition*

**Version 4.1**

June 2000

Copyright © 2000 Sun Microsystems, Inc. Some preexisting portions Copyright © 2000 Netscape Communications Corporation. All rights reserved.

Sun, Sun Microsystems, and the Sun logo, iPlanet, and the iPlanet logo are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries. Netscape and the Netscape N logo are registered trademarks of Netscape Communications Corporation in the U.S. and other countries. Other Netscape logos, product names, and service names are also trademarks of Netscape Communications Corporation, which may be registered in other countries.

Federal Acquisitions: Commercial Software—Government Users Subject to Standard License Terms and Conditions

The product described in this document is distributed under licenses restricting its use, copying, distribution, and decompilation. No part of the product or this document may be reproduced in any form by any means without prior written authorization of the Sun-Netscape Alliance and its licensors, if any.

THIS DOCUMENTATION IS PROVIDED “AS IS” AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

---

Copyright © 2000 Sun Microsystems, Inc. Pour certaines parties préexistantes, Copyright © 2000 Netscape Communication Corp. Tous droits réservés.

Sun, Sun Microsystems, et the Sun logo, iPlanet, and the iPlanet logo sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux Etats-Unis et d'autre pays. Netscape et the Netscape N logo sont des marques déposées de Netscape Communications Corporation aux Etats-Unis et d'autre pays. Les autres logos, les noms de produit, et les noms de service de Netscape sont des marques déposées de Netscape Communications Corporation dans certains autres pays.

Le produit décrit dans ce document est distribué selon des conditions de licence qui en restreignent l'utilisation, la copie, la distribution et la décompilation. Aucune partie de ce produit ni de ce document ne peut être reproduite sous quelque forme ou par quelque moyen que ce soit sans l'autorisation écrite préalable de l'Alliance Sun-Netscape et, le cas échéant, de ses bailleurs de licence.

CETTE DOCUMENTATION EST FOURNIE “EN L'ÉTAT”, ET TOUTES CONDITIONS EXPRESSES OU IMPLICITES, TOUTES REPRÉSENTATIONS ET TOUTES GARANTIES, Y COMPRIS TOUTE GARANTIE IMPLICITE D'APTITUDE À LA VENTE, OU À UN BUT PARTICULIER OU DE NON CONTREFAÇON SONT EXCLUES, EXCEPTÉ DANS LA MESURE OÙ DE TELLES EXCLUSIONS SERAIENT CONTRAIRES À LA LOI.

# Contents

|   |          |
|---|----------|
| <b>About This Guide</b> .....   | <b>5</b> |
| What You Need to Know .....   | 5        |
| What's in This Guide .....  | 6        |
| Document Conventions .....  | 6        |
| Where to Find This Guide Online .....   | 7        |
| How to Use Online Help .....  | 7        |
| Where to Find Related Information .....   | 7        |
| <br>  |          |
| <b>Chapter 1 Before You Install iPlanet Web Server, FastTrack Edition</b> ..... | <b>9</b> |
| iPlanet Web Server, FastTrack Edition Overview .....                            | 9        |
| Differences Between FastTrack Edition and Enterprise Edition .....              | 10       |
| More Information .....  | 11       |
| Supported Platforms .....   | 11       |
| Required Patches .....  | 11       |
| Hardware and Software Requirements .....  | 12       |
| Unix .....  | 12       |
| Windows NT .....  | 12       |
| Linux .....   | 13       |
| Other Technical Requirements .....  | 14       |
| Creating a DNS Alias for the Server .....                                       | 14       |
| Unix and Linux User Accounts for the Server .....                               | 14       |
| Windows NT User Accounts for the Server .....                                   | 15       |
| Choosing Unique Port Numbers .....  | 16       |
| Installation Overview .....   | 17       |
| Installing Netscape Communicator .....  | 17       |
| Installing Netscape Directory Server .....                                      | 18       |
| Installing Netscape Console .....   | 18       |
| Installing a Java Developer's Kit .....   | 18       |
| Accessing iPlanet Web Server from the Netscape Console .....                    | 20       |

|   |           |
|---|-----------|
| <b>Chapter 2 Installing iPlanet Web Server, FastTrack Edition on Unix</b> .....       | <b>21</b> |
| Installing on Unix Platforms .....  | 21        |
| Installing from a CD Shipped With Solaris 8 .....                                     | 21        |
| Logging In as the Correct User .....  | 22        |
| Unpacking the Files .....   | 22        |
| Running Setup .....   | 23        |
| Typical or Custom Installation .....  | 23        |
| Express Installation .....  | 27        |
| Using Silent Installation .....   | 30        |
| Using Uninstall on Unix .....   | 32        |
| <br>  |           |
| <b>Chapter 3 Installing iPlanet Web Server, FastTrack Edition on Windows NT</b> ..... | <b>35</b> |
| Installing on Windows NT .....  | 35        |
| Unpacking the Files .....   | 36        |
| Running setup.exe .....   | 36        |
| Using Uninstall on Windows NT .....   | 41        |
| <br>  |           |
| <b>Chapter 4 Installing iPlanet Web Server, FastTrack Edition on Linux</b> .....      | <b>43</b> |
| Installing on Linux .....   | 43        |
| Logging In as the Correct User .....  | 43        |
| Unpacking the Files .....   | 44        |
| Running Setup .....   | 45        |
| Typical or Custom Installation .....  | 45        |
| Express Installation .....  | 49        |
| Using Silent Installation .....   | 52        |
| Using Uninstall on Linux .....  | 54        |
| <br>  |           |
| <b>Chapter 5 Troubleshooting Your Installation</b> .....                              | <b>57</b> |
| Troubleshooting All Platforms .....   | 57        |
| Troubleshooting Unix and Linux .....  | 58        |
| Troubleshooting Windows NT .....  | 59        |
| <br>  |           |
| <b>Index</b> .....  | <b>61</b> |

# About This Guide

This guide explains how to install iPlanet™ Web Server, FastTrack Edition.

This preface contains the following sections:

- What You Need to Know
- What's in This Guide
- Document Conventions
- Where to Find This Guide Online
- How to Use Online Help
- Where to Find Related Information

## What You Need to Know

The guide assumes that you are a server administrator with a general understanding of the following:

- The Internet and the World Wide Web
- The iPlanet Web Server architecture, as explained in the *iPlanet Web Server Administrator's Guide*.

# What's in This Guide

The *iPlanet Web Server Installation Guide* covers the information you need to install iPlanet Web Server on your system.

| <b>If you want to do this:</b>  | <b>See this chapter:</b>  |
|---|---|
| Find out what you need to do before installing the server, including installing other products required by the server | Chapter 1, "Before You Install iPlanet Web Server, FastTrack Edition"       |
| Get step by step instructions for installing and uninstalling the server on Unix                                      | Chapter 2, "Installing iPlanet Web Server, FastTrack Edition on Unix"       |
| Get step by step instructions for installing and uninstalling the server on NT  | Chapter 3, "Installing iPlanet Web Server, FastTrack Edition on Windows NT" |
| Get step by step instructions for installing and uninstalling the server on Linux                                     | Chapter 4, "Installing iPlanet Web Server, FastTrack Edition on Linux"      |
| Troubleshoot your installation  | Chapter 5, "Troubleshooting Your Installation"                              |
| Find information in the guide   | Index   |

## Document Conventions

This guide uses the following conventions:

- When this document refers to iPlanet Web Server, it refers to the FastTrack Edition.
- The `monospace` font is used for sample code and code listings, API and language elements (such as method names and property names), filenames, path names, directory names, HTML tags, and any text that must be typed on the screen.
- The monospace italic font is used in code to represent placeholder parameters that should be replaced with an actual value.
- Standard *Italic* type is used for book titles, emphasis, letters as letters (for example, "Spell it with a *T*."), and words as words (for example, "The word *server* is in every product name.").

- Brackets ([]) are used to enclose parameters that are optional.
- A slash (/) is used to separate directories in a path. (Windows NT supports both the slash and the backslash.)

## Where to Find This Guide Online

You can find the *iPlanet Web Server Installation Guide* online in PDF and HTML formats. To find these files, use this URL:

`http://docs.iplanet.com/docs/manuals/enterprise.html`

The information in this guide is also part of the help system for iPlanet Web Server. See “How to Use Online Help.”

## How to Use Online Help

When you are using iPlanet Web Server, you can click Help in any iPlanet Web Server window to open a web browser window showing explanations of all of the window’s user interface fields. You can then navigate to other parts of the help document, as well as the entire documentation set. The installation programs do not have online help, but some migration screens do.

To move to the top of whatever major part of online help you’re in and gain access to navigational buttons and to a Contents, Index, and DocHome list of resources, click the arrow button to the left of a heading. (If you don’t see an arrow button, scroll until you do.)

## Where to Find Related Information

In addition to this guide, iPlanet Web Server comes with supplementary information for administrators as well as documentation for end users and developers. These documents are available through your online help system, from the Bookshelf button.

In addition, all documents are available online. Use the following URL to see all the iPlanet Web Server documentation:

`http://docs.iplanet.com/docs/manuals/enterprise.html`

These are the iPlanet Web Server, FastTrack Edition documents that are available:

- *iPlanet Web Server Administrator's Guide*
- *Programmer's Guide for iPlanet Web Server*
- *NSAPI Programmer's Guide*
- *Programmer's Guide to Servlets in iPlanet Web Server*
- Release Notes



# Before You Install iPlanet Web Server, FastTrack Edition

The following sections discuss the information you need to know before you install iPlanet Web Server, FastTrack Edition.

This chapter contains the following sections:

- iPlanet Web Server, FastTrack Edition Overview
- Supported Platforms
- Required Patches
- Hardware and Software Requirements
- Other Technical Requirements
- Installation Overview
- Installing Netscape Communicator
- Installing Netscape Directory Server
- Installing Netscape Console
- Installing a Java Developer's Kit
- Accessing iPlanet Web Server from the Netscape Console

## iPlanet Web Server, FastTrack Edition Overview

iPlanet Web Server, FastTrack Edition is the perfect web server for developing and testing Java applications and deploying low traffic web sites.

iPlanet Web Server, FastTrack Edition is easy to use, and comes with built-in support for Java, SSL, and LDAP. Because it shares a common code base with iPlanet Web Server, Enterprise Edition, applications developed for it can be run on the Enterprise Edition without requiring changes.

## Differences Between FastTrack Edition and Enterprise Edition

iPlanet Web Server, FastTrack edition has many of the same features as Enterprise Edition; however, some features have been removed from FastTrack Edition. There were no previous versions of iPlanet Web Server, FastTrack Edition 4.1. However, features were removed from the iPlanet Web Server, Enterprise Edition 4.1 to create the FastTrack Edition feature set. Some of the features removed are:

**Scalability.** FastTrack Edition has a limit of 5 concurrent threads, which limits use to low traffic environments or development.

**Security.** The FastTrack Edition SSL encryption level is only 56-bit, making it less functional for highly secure environments.

**High Availability .** FastTrack Edition's multiprocess mode has been disabled, so process failover on Unix is not an option, as it is in Enterprise Edition. The Intelligent Load Balancing Plug-in is also not available for FastTrack Edition.

**Manageability.** FastTrack Edition is limited to five virtual servers, as opposed to 256 in Enterprise Edition. FastTrack Edition does not support distributed administration, cluster management, and SNMP monitoring.

LDAP is still required for user authentication, and the FastTrack Edition includes license for use of Netscape Directory Server for development purposes.

**Applications.** FastTrack Edition servlets and JSPs do not run in multiprocess mode. Because FastTrack Edition does not include the JavaScript environment, there is no LiveWire native database access. Perl and NSAPI are still supported, as are CGIs.

**Content Management.** FastTrack Edition does not include Web Publishing and search have been removed.

## More Information

For a full description of the iPlanet Web Server, Enterprise Edition, see:

[http://www.iplanet.com/products/infrastructure/web\\_servers/index.html](http://www.iplanet.com/products/infrastructure/web_servers/index.html)

## Supported Platforms

iPlanet Web Server, FastTrack Edition runs on these platforms:

**Table 1-1** Supported Platforms

| Operating System  | Architecture  | Required Memory | Required Disk Space |
|---|---------------|-----------------|---------------------|
| Compaq Tru64 UNIX 4.0d; 4.0e and 4.0f supported through binary compatibility.   | Alpha         | 64 MB minimum   | 110 MB minimum      |
| Hewlett-Packard HP-UX 11.0; 11.0 64 supported through binary compatibility.     | PA-RISC       | 64 MB minimum   | 110 MB minimum      |
| IBM AIX 4.3.3   | Power PC      | 64 MB minimum   | 110 MB minimum      |
| Sun Solaris 8; Solaris 2.6 and Solaris 7 supported through binary compatibility | SPARC         | 64 MB minimum   | 110 MB minimum      |
| Microsoft Windows NT version 4.0 with Service Pack 5 or greater.                | Intel Pentium | 64 MB minimum   | 110 MB minimum      |
| Red Hat Linux 6.1, based on kernel 2.2.12 with glibc 2.1.2                      | x86           | 64 MB minimum   | 110 MB minimum      |

## Required Patches

For the latest information on required patches and service packs, see the release notes at <http://docs.iplanet.com/docs/manuals/enterprise.html>.

# Hardware and Software Requirements

In addition to the Unix, Linux, or Windows NT operation system. memory and disk space requirements listed above, your computer must have the following hardware and software:

## Unix

- Swap space at least as large as the amount of RAM on your system (twice the amount of RAM is recommended).
- 10 MB of disk space for log files.
- Netscape Communicator 4.61 or higher, or Microsoft Internet Explorer 4.01.
- Java, JavaScript, and cookies enabled in your browser.
- If you are using Internet Explorer, you need to set your browser to check for a new version of a page every time you access it. To configure this setting, from the View menu, choose Internet Options. On the General tab, in the Temporary Internet Files section, click Settings. Click the radio button to check for newer versions of stored pages every visit to the page.
- A Unix user and group that have the appropriate permissions for running iPlanet Web Server. This user is different from the user that runs the Administration Server. Often people use the user `nobody` and group `nobody` for this purpose, but you can also create a specific user and group.
- A Java Development Kit (JDK) installed on your system if you plan to use Java Server Pages (JSPs). For more information on the required version and where to obtain it, see “Installing a Java Developer’s Kit,” on page 18.

## Windows NT

- If you plan on running more than two separate instances of iPlanet Web Server on your system, an additional 16 MB RAM for each server instance.
- Paging space at least as large as the amount of RAM on your system (twice the amount of RAM is recommended).
- 10 MB of disk space for log files.
- Netscape Communicator 4.61 or higher or Microsoft Internet Explorer 4.01 or higher

- If you are using Internet Explorer, you need to set your browser to check for a new version of a page every time you access it. To configure this setting, from the View menu, choose Internet Options. On the General tab, in the Temporary Internet Files section, click Settings. Click the radio button to check for newer versions of stored pages every visit to the page.
- Java, JavaScript, and cookies enabled in your browser.
- If you intend to use hostnames during the iPlanet Web Server installation, DNS properly configured with an entry for your server in a DNS server.
- A static IP address on your machine.
- A Java Development Kit (JDK) installed on your system if you plan to use Java Server Pages (JSPs). iPlanet Web Server for Windows NT requires JDK 1.2.2 or higher. For more information, see “Installing a Java Developer’s Kit,” on page 18.

## Linux

- 256 MB swap space.
- 10 MB of disk space for log files.
- Netscape Communicator 4.61 or higher or Microsoft Internet Explorer 4.01.
- Java, JavaScript, and cookies enabled in your browser.
- If you are using Internet Explorer, you need to set your browser to check for a new version of a page every time you access it. To configure this setting, from the View menu, choose Internet Options. On the General tab, in the Temporary Internet Files section, click Settings. Click the radio button to check for newer versions of stored pages every visit to the page.
- A Linux user and group that have the appropriate permissions for running iPlanet Web Server. This user is different from the user that runs the Administration Server. Often people use the user `nobody` and group `nobody` for this purpose, but you can also create a specific user and group.
- A Java Development Kit (JDK) installed on your system if you plan to use Java Server Pages (JSPs). For more information on the required version and where to obtain it, see “Installing a Java Developer’s Kit,” on page 18.

## Other Technical Requirements

Once you have the proper hardware and software necessary to install iPlanet Web Server, you should make sure that you meet the following requirements:

- You know the host name and IP address of your server computer.
- Your server has a DNS alias. For information on creating a DNS alias for your server, see “Creating a DNS Alias for the Server” on page 14.
- Your server has a user account on Unix, Linux, or NT. See “Unix and Linux User Accounts for the Server” on page 14 or “Windows NT User Accounts for the Server” on page 15 for more information.
- You have two port numbers - one for the Administration Server and the other for the first iPlanet Web Server server instance. For information on choosing port numbers for your server, see “Choosing Unique Port Numbers” on page 16.

## Creating a DNS Alias for the Server

If your server will run on one machine among many in a network, you or your system administrator should set up a DNS CNAME record or an alias that points to the actual server machine. Later, you can change the actual hostname or IP address of the server machine without having to change all URLs that point to the server machine.

For example, you might call the server *my\_server.my\_company.com* and then use an alias like *www.my\_company.com*. So the URLs to documents on your server would always use the *www* alias instead of *my\_server*.

## Unix and Linux User Accounts for the Server

When the iPlanet Web Server starts, it runs with a Unix or Linux user account that you specify during installation. Any child processes of the server are created with this account as the owner. It is best to create a Unix or Linux account for the server that has restricted access to your system resources. The account needs read permissions for the configuration files and write permissions for the `logs` directory. For security reasons, the user account shouldn't have write permissions to some of the configuration files, though some, such as the access control files, should be group writable.

In addition, the user account you create for the server should belong to a group that contains the server users for all iPlanet servers so that multiple servers can have access to shared files.

If you don't create a dedicated user account for iPlanet Web Server, on many platforms you can use the account with the name `nobody`, but you might not want to give the user `nobody` permissions for running the iPlanet Web Server. In addition, the user `nobody` might not work on some systems. Some systems assign a user ID of `-2` for the user `nobody`. A user ID of less than `0` generates an error during installation. Check the `/etc/passwd` file to see if the `uid` for `nobody` exists, and make sure it is greater than `0`.

---

**NOTE** It's strongly recommended that you use a dedicated account for the server.

---

The Administration Server can also run with a user account that has write permissions to the configuration files for all installed servers. However, it's much easier to run the Administration Server as `root` because then the Administration Server user can start and stop servers with port numbers less than `1024`. (Port numbers greater than `1024` can be started by any user).

The user you use to run the iPlanet Web Server (often `nobody`) must be in the same group as the user you use to run the Administration Server (often `root`).

---

**CAUTION** If you plan to use SNMP, you must run both the iPlanet Web Server instance and the Administration Server as `root`.

---

## Windows NT User Accounts for the Server

You should create a Windows NT user account for your iPlanet Web Server. It should have restricted access to your system resources and run under a nonprivileged system user account (one that has a limited set of system permissions to your system). When the server starts, it runs with this user account. Any server extension modules the server uses are created with this user account as the owner.

During installation, the server uses the `LocalSystem` account, not the user account you created. Once you start and run the server, you should use the user account you created. You can change the user account for the server after the installation process. You can configure that user account so that it has permissions to get files on another computer, so that your server can serve files that are mounted from another computer.

In addition, the user account you create for the server should belong to a group that contains the server users for all iPlanet servers so that multiple servers can have access to shared files.

---

**NOTE** It's strongly recommended that you use a dedicated account for the server.

---

## Choosing Unique Port Numbers

You need multiple port numbers: one for the Administration Server and one for each instance of iPlanet Web Server. The Administration Server is a special instance of the iPlanet Web Server that you use to manage your iPlanet Web Server. This Administration Server is not the same as the Netscape Administration Server shipped with the Netscape Console.

The standard web server port number is 80 and the standard SSL-enabled web server port number is 443, but you can install iPlanet Web Server to use any port. If you use a port other than the default port (port 80), the URL used to gain access to your home page changes. For example, if your computer is called `www.siroe.com` and you choose port 9753, your server's URL will be `http://www.siroe.com:9753/`.

You should choose a random number for the Administration Server to make it harder for anyone to breach your server. When you configure your server, you use the Administration Server's port number. For example, for server `mozilla.com`, the server's URL could be `http://www.mozilla.com:2634/`.

Make sure the port you choose isn't already in use. On Unix and Linux systems, you can check the file `/etc/services` on the server machine to make sure you don't assign a port number that is reserved for another service. If you choose a port that is currently being used by another service, the installation program prompts you for another port.



---

**NOTE** If you use Unix or Linux, and you choose a server port number lower than 1024, you must be logged in as `root` to start the server. After the server binds to the port, the server changes from the `root` user account to the user account you specify. If you choose a port number higher than 1024, you don't have to be the `root` user to start the server.

---

## Installation Overview

You can install iPlanet Web Server by downloading it off the iPlanet web site.

When you install iPlanet Web Server, you follow these basic steps:

1. If you have an existing iPlanet Web Server, Netscape Enterprise Server, or Netscape FastTrack Server already installed, shut it down and save a back up of all the files in the server root. On Windows NT you may also want to save copies of files added to `Winnt/Sytem32` during server installation, and copies of the registry as well. For more information on saving copies of the registry, see your operating system documentation.
2. If you do not already have either Communicator 4.61 or higher or Internet Explorer 4.01 or higher installed, install one.
3. If you are planning to use users and groups for access control, and you do not have a Directory Server installed, install it. When you install Directory Server, you also install Netscape Console.
4. Make a note of the LDAP URL associated with your Directory Server, because you will need it during the installation process.
5. Install and configure iPlanet Web Server.

## Installing Netscape Communicator

Because you need a web browser such as Netscape Communicator to administer your server, you must install Communicator or another browser onto your machine before installing iPlanet Web Server. You can download the software from <http://home.netscape.com>.

# Installing Netscape Directory Server

If you are planning to use users and groups (for example, for access control) with your iPlanet Web Server, you need to install Netscape Directory Server before installing the iPlanet Web Server, or use an existing LDAP server installation.

For information on Directory Server see <http://www.iplanet.com/>.

---

**NOTE** You can install Netscape Directory Server and iPlanet Web Server on the same Windows NT machine if you do the following:

- If during installation you are asked which version of libraries to install, always select those which have the most recent release dates.
- If you need to uninstall either product, you must first make a copy of the uninstall program (`uninst.exe`) since it will be removed during the uninstall process. Also, you must uninstall iPlanet Web Server before you uninstall Directory Server.

---

## Installing Netscape Console

When you install the Directory Server, you also install Netscape Console. Use Netscape Console to manage your Directory Server. You can also access the iPlanet Web Server from Netscape Console if you run a script after you install the iPlanet Web Server. For more information, see “Accessing iPlanet Web Server from the Netscape Console” on page 20.

If you are not planning to use Directory Server, you do not need to install Netscape Console.

## Installing a Java Developer's Kit

If you are planning to use Java, you must install a Java Runtime Environment (JRE) or a Java Developer's Kit (JDK). iPlanet Web Server includes a JRE that you can install during the installation process. However, you may prefer to install a JDK.

You need either a JRE or a JDK to use the following features:

- Java servlets
- server-side JavaScript database connectivity (LiveWire)

---

**CAUTION** If you are using HP-UX, you must install the JRE included with iPlanet Web Server or supply a JDK. Without one or the other, the HP-UX iPlanet Web Server won't run.

---

You need a JDK to run the following feature (it will not run with a JRE):

- Java Server Pages (JSPs)

Because you need a JDK to use JSPs, JSPs are only turned on by default if you provide a path to a JDK during installation.

Different platforms require different versions of the JDK:

- Sun Solaris requires JDK 1.2.2\_01 or higher. Download a JDK at:  
`http://java.sun.com/jdk/`
- HP-UX requires JDK 1.2.2\_02 or higher. Download a JDK at:  
`http://www.hp.com/go/java`
- IBM AIX requires JDK 1.2.2\_01 or higher. Download a JDK at:  
`http://www.ibm.com/java/jdk/download/index.html`
- Compaq Tru64 UNIX requires JDK 1.2.2-3 or higher. Download a JDK at:  
`http://www.compaq.com/java`
- Windows NT requires a JDK of 1.2.2\_01 or higher. Download a JDK at:  
`http://java.sun.com/jdk/`
- Linux requires a JDK of 1.2.2 or higher, release candidate 4 or later. Download a JDK at:  
`http://www.blackdown.org`

You can install the JDK before you install iPlanet Web Server, and provide the path to it during installation, or you can wait until after you've installed iPlanet Web Server to install it.

After installation you can change the JRE or JDK iPlanet Web Server uses. In the Administration Server, on the Global Settings tab, use the Configure JRE/JDK Paths page. You can also change the path to the JRE/JDK in this page.

---

**NOTE**      Though you can use the JRE with servlets on Solaris, using the JDK instead improves performance.

---

## Accessing iPlanet Web Server from the Netscape Console

If you want to be able to access the iPlanet Web Server from the Netscape Console, run the `installMCC` script after you install iPlanet Web Server and the Netscape Console. `installMCC` is a perl script found in `server_root/bin/https/bin`.

To run the script, follow these steps:

1. Copy `installMCC` from the `server_root/bin/https/bin` directory to your Directory Server machine at `Directory_Server_Root/shared/bin`.
2. At the command prompt, run the `installMCC` script using the following syntax:

```
perl installMCC -root server_root -host hostname -port web_admin_port
-ldapost hostname -ldapport ldap_port -basedn basedn -binddn binddn
-bindpwd bind_password
```

For example:

```
perl installMCC -root /usr/netscape/server4 -host
austen.red.iplanet.com -port 8888 -ldapost
siroe.red.iplanet.com -ldapport 389 -basedn siroe.com -binddn
"cn=Directory Manager" -bindpwd password
```

3. Copy the files `entserve41.jar` and `entserv41_en.jar` from `server_root/bin/https/jar` to `server_root/java/jars`.
4. If you are using Unix or Linux, go to the server root and run `./startconsole`. If you are using Windows NT, start the Netscape Console from the Start menu.

Once you have run this script, your iPlanet Web Server appears in the Netscape Console window. When you double-click on the icon in the Netscape Console, the Console launches a web browser window and displays the iPlanet Web Server Administration Server page.

# Installing iPlanet Web Server, FastTrack Edition on Unix

This chapter tells you how to install iPlanet Web Server on Unix systems. It contains the following sections:

- Installing on Unix Platforms
- Using Silent Installation
- Using Uninstall on Unix

## Installing on Unix Platforms

The following sections describe the installation of the iPlanet Web Server.

---

**CAUTION** You must install your version 4.x servers in a server root directory separate from the server root directory that contains previous versions of the Web Server. Do not install iPlanet Web Server on an NFS-mounted drive due to potential security and file locking restrictions on remote partitions.

---

## Installing from a CD Shipped With Solaris 8

If you are installing iPlanet Web Server, FastTrack edition from the iPlanet Advantage Software CD shipped with Solaris 8, the installer is different from the one described in this Guide. For installation information, see the notes on the iPlanet Advantage Software CD.

## Logging In as the Correct User

Before you install iPlanet Web Server, you must log in as `root`, unless you meet the following conditions:

- You plan to install the iPlanet Web Server on a port higher than 1024.
- The location where you plan to install the server (the server root directory) is writable with your non-root login.
- You are not planning to use Express installation.

If you meet these conditions, you do not need to log in as `root` to install the server; instead log in as the user account that the Administration Server will use. However, you may still prefer to log in as `root`, even though you meet the conditions.

## Unpacking the Files

To get the iPlanet Web Server files and unpack them, follow these steps:

1. Download the file from <http://www.iplanet.com> and save it in a temporary directory.
2. Change to the directory on your Unix machine where you copied the file.

Unpack the `.gz` file by typing `gunzip filename.tar.gz`. The file name is in the format:

```
fasttrack-4.1-security-internationalization.platform.tar.gz
```

For example:

```
fasttrack-4.1-export-us.hppa1.1-hp-hpux11.tar.gz.
```

3. Untar the unzipped file by typing `tar -xvf filename.tar`.

This command unpacks the server files and creates a temporary directory structure under the current directory. Unpacking the file may take a little time. When the files are unpacked, you see a `WebServer` directory, and three files: `LICENSE.txt`, `README.txt`, `setup`, and `setup.inf`.

---

**NOTE** Untarring the file will cause the permissions of the destination directory to be modified so that applications can no longer write files to it. To avoid this problem, untar the file in a directory where you can modify the permissions. For example, instead of `/tmp`, use a subdirectory under `/tmp`, for example, `/tmp/iwsinstall`.

---

## Running Setup

You run the setup program to install iPlanet Web Server.

During the installation process, you have the choice of three kinds of installation: Express, Typical, or Custom. Most users should choose Typical or Custom (they are identical). Typical or Custom gives you more flexibility in the components you can install and the settings you can configure.

Express installation is for users who have little experience or are evaluating the product. It makes assumptions about such things as port number and which components to install.

When running the installer, you can use the following commands:

- Press the Enter key to accept defaults specified in brackets (for example `[All]`).
- Press `CTRL+b` to return to a previous screen (note that this sequence does not work on all screens).
- Press `CTRL+c` to cancel the installation program.
- Enter comma-separated lists of numbers when you want to select multiple items (for example, `1, 2, 3`).

---

**NOTE** For Express installation, you must be logged in as `root` when running setup.

---

### Typical or Custom Installation

Most users should install the Typical or Custom installation.

To run setup, follow these steps:

1. If you are not in the directory already, change to the directory where you unpacked the file.
2. Type `./setup` to start the server installation.

If you aren't logged in as the `root` user (superuser), or if you don't have sufficient write permissions, you'll get one or more error messages.

A welcome screen appears.

3. Press Enter to continue with the installation.
4. Choose whether you accept the software license agreement by typing Yes to accept, or No to decline. If you have not yet read the license agreement, cancel out of the installation and read the file `LICENSE.txt` that is in the same directory as the `setup` program.
5. Choose Typical or Custom.

Press Enter.

6. Type a server root directory or accept the default (`/usr/netnscape/server4`).

This directory is where the server files and directory structure will be installed.

You need to run the server as a user that has write access to this directory, for example, the directory owner.

7. Choose all components.

Press Enter.

8. Choose the iPlanet Web Server subcomponents to install.

If you do not install a subcomponent and later decide you want to use it, you can run the installer again to install just the missing subcomponent. However, you cannot uninstall individual subcomponents once they are installed.

By default, all subcomponents are installed.

The subcomponents you can choose to install are described in the following numbered sections.

#### 1. Server Core

Installs the Administration Server and the first instance of iPlanet Web Server.



---

**CAUTION** You must install the Server Core subcomponent the first time you install iPlanet Web Server. If you install additional subcomponents later, you are not required to reinstall the Core subcomponent.

---

## 2. Java Runtime Environment

If you are planning to use Java, you must have a Java Runtime Environment (JRE) or a Java Developer's Kit (JDK). You can install the provided JRE, or supply your own JDK. For more information, see "Installing a Java Developer's Kit," on page 18.

---

**CAUTION** If you are using HP-UX, even if you are not installing Java you must install the JRE or supply a JRE or JDK. Without one or the other, the HP-UX iPlanet Web Server won't run.

---

## 3. Java Support

Install this subcomponent if you are planning to use Java servlets.

You also need a JRE or JDK to use iPlanet Web Server's Java support. Install the JRE provided with iPlanet Web Server (see the previous subcomponent) or install a JDK.

9. Enter the machine name or accept the default.
10. Enter the Unix user and group names to use when running the default instance of iPlanet Web Server.

The default user and group is `nobody`.

11. Enter the Unix user name to use when running the Administration Server.

In most cases this user is `root`.

12. Enter the Administration Server user name and password to use for authentication. You are asked to enter your password twice.

This user is not a Unix user, but a user name and password in the Directory Server. You must make sure that the Administration Server user exists in the Directory Server, and that it has access permissions to the Directory Server to perform user and group management tasks.

13. Type the Administration Server port number or accept the default of 8888.

Make sure you remember the port number for the Administration Server.

For the most flexibility, choose a port number above 1024. If you want to use a port number lower than 1024 for your Administration Server, you must be logged on as `root` to start the server. Do not use a port that is already in use.

This iPlanet Web Server Administration Server is not the same as the Netscape Console, or the Administration Server shipped with other iPlanet/Netscape servers.

For more information on ports, see “Choosing Unique Port Numbers” on page 16.

14. Type the port number of iPlanet Web Server. The default is 80. This port should be different than the Administration Server port. Unless you are installing as `root`, the port must be within the stated range (1024 to 65535). If you are installing as `root` you can use port numbers below 1024.

If you use a port other than the default port (port 80), the URL used to gain access to your home page will change. For example, if your computer is called `www.iplanet.com` and you choose port 9753, your server's URL will be `http://www.iplanet.com:9753/`

For more information on ports, see “Choosing Unique Port Numbers” on page 16.

15. Specify whether you are using an LDAP-based directory server (enter Yes or No).

You must use an LDAP directory server if you want to use user and group functionality for access control in iPlanet Web Server.

If you use an LDAP directory server, enter following:

- o The LDAP URL in the format `ldap://hostname:port/base DN`. For example, `ldap://iplanet.com:389/o=siroe.com`.
- o The bind DN (for example, `cn=Directory Manager`) and the directory server password.

16. Type the root directory where your server's content files (the images, HTML documents and data you want to present to users accessing the server) will reside. The default is `server_root/docs`.

17. If you want to use your own JDK, enter Yes.

If you are installing Java support, you must have a JRE or a JDK. You can install the supplied JRE subcomponent or use a JDK already installed on your system. For more information, see “Installing a Java Developer’s Kit,” on page 18.

18. If you are installing Java support, and you either did not choose to install the provided JRE, or you chose to use your own JDK, enter the absolute path to the directory where you installed the JDK on your system.

The JDK must already exist in the specified directory.

If the JDK libraries and CLASSPATH are stored in the default directories below the JDK directory (`/jre/lib` and `/lib`, respectively), press Enter at the JDK LIBPATH and JDK CLASSPATH prompts. If the libraries and CLASSPATH are stored in a different place on your system, enter the pathnames. On most systems you will not have to enter pathnames at these prompts.

19. After the installation program extracts and installs the iPlanet Web Server components, press Enter.
20. Go to the `https-admserv` directory under your server root directory (for example `/usr/netscape/server4`) and start the Administration Server by typing `./start`. You can also type `./startconsole` in the server root directory.

`startconsole` starts the Administration Server and launches a browser to the Administration Server administration pages. Later, if you have a Netscape Console installed and have registered the server with it, `startconsole` starts the Netscape Console. For more information, see “Accessing iPlanet Web Server from the Netscape Console,” on page 20.

21. To configure your iPlanet Web Server, use the URL:  
`http://server_name:administration_port`

For example: `http://iplanet:8888`

Enter your administration user name and password.

You can now configure your iPlanet Web Server. For more information, see the *iPlanet Web Server Administrator’s Guide*.

## Express Installation

Express installation is for users who have little experience or are evaluating the product. It makes assumptions about such things as port number and which components to install.

The following table lists the assumptions made by the Express installation. If you would like to use different installation settings, use Typical or Custom installation.

**Table 2-1** Express installation settings

| Installation Setting    | Value  |
|-------------------------|--|
| administration port     | 8888   |
| administration URL      | <code>http://machine name:administration port</code> |
| HTTP port number        | 80   |
| document root           | <code>server_root/doc</code>                         |
| Unix user to run server | root   |
| LDAP users and groups   | not using  |
| JDK                     | none   |
| JRE                     | default JRE shipped with iPlanet Web Server          |
| subcomponents           | All default subcomponents installed                  |

After installing, you can configure the server to use LDAP users and groups, and to use a JDK. For more information on how to make these changes, see the *iPlanet Web Server Administrator's Guide*.

---

**CAUTION** You must log in as `root` to use Express installation.

---

To run `setup`, follow these steps:

1. If you are not in the directory already, change to the directory where you unpacked the file.
2. Type `./setup` to start the server installation.  
A welcome screen appears.
3. Press Enter to continue with the installation.
4. Choose whether you accept the software license agreement by entering Yes to accept, or No to decline. If you have not yet read the license agreement, cancel out of the installation and read the file `LICENSE.txt` that is in the same directory as the `setup` program

5. Choose Express and press Enter.
6. Type a server root directory or accept the default (`/usr/netscape/server4`).  
This directory is where the server files and directory structure will be installed. `root` must have write access to this directory.
7. Choose all components.  
Press Enter.
8. Enter the Unix user and group names to use when running the default instance of iPlanet Web Server.  
For Express installation, this user must be `root`. The group must be the group to which `root` belongs.
9. Enter the Unix user name to use when running the Administration Server.  
In most cases, this user is `root`.
10. Enter the Administration Server user name and password to use for authentication. You are asked to enter your password twice.  
If you are using a Netscape Directory Server, you must make sure that the Administration Server user exists in the Directory Server, and that it has access permissions to the Directory Server to perform user and group management tasks.
11. After the installation program extracts and installs the iPlanet Web Server components, press Enter.
12. Go to the `https-adminserv` directory under your server root directory (for example `/usr/netscape/server4`) and start Administration Server by typing `./start`. You can also type `./startconsole` in the server root directory.  
`startconsole` starts the Administration Server and launches a browser to the Administration Server administration pages. Later, if you have a Netscape Console installed and have registered the server with it, `startconsole` starts the Netscape Console. For more information, see “Accessing iPlanet Web Server from the Netscape Console,” on page 20.
13. To configure your iPlanet Web Server, use the URL:  
`http://server_name:administration_port`  
For example: `http://iplanet:8888`  
Enter your administration user name and password.

You can now configure your iPlanet Web Server. For more information, see the *iPlanet Web Server Administrator's Guide*.

## Using Silent Installation

If you want to install several iPlanet Web Servers, you can use silent installation to create a file of responses to the setup program's prompts. You can then edit the file, `install.inf`, and use it to install future iPlanet Web Server installations.

Silent installation works best when you use the Typical installation and your installations are all similar.

---

**CAUTION** The `install.inf` file contains the password used to log on to the Administration Server. The password is not encrypted; it is in plain text. If you use silent installation, be sure and delete the `install.inf` file once you are through with it.

---

To use silent installation, follow these steps:

1. Run setup with the `-k` option, which creates a file called `install.inf` that contains all your responses to the installer's prompts. At the command prompt, type:  

```
./setup -k
```
2. Answer the installer prompts and install iPlanet Web Server.
3. When the server is installed, go to the `server_root/setup` directory, where you'll find the `install.inf` file.
4. Copy the `install.inf` file to the directory where you will run setup to install your next iPlanet Web Serve.
5. Edit the values in the `install.inf` file to match the values of the next server you want to install.

For example, change the machine name, port number, installation directory, etc.

6. Run setup using the `install.inf` file for input. For example:

```
./setup -s -f install.inf
```

7. The server is installed.

The following is an example of an `install.inf` file.

```
[General]
FullMachineName= austen.iplanet.com
SuiteSpotUserID= annh
SuitespotGroup= staff
SecurityCheck= False
RequireDomain= False
ServerRoot= /usr/netscape/server4
Components= WebServer

[WebServer]
Upgrade= False
Reinstall= False
AdminPort= 8888
HttpPort= 1888
HttpDocRoot= /usr/netscape/server4/docs
AdminSysUser= annh
AdminName= admin
AdminPassword= password
UgLdapUse= Yes
UgLdapUrl= ldap://test:389/o=siroe.com
UgLdapName= cn=Directory Manager
UgLdapPassword= password
JRE_DIR= /usr/netscape/server4/bin/https/jre
USE_JDK= No
CompVersions= 2:2:1:2:0:0:0:0:0
Components= nescore,JRE,java,cleanup

[cleanup]
Archive= cleanup.zip
```

The following table shows some useful `install.inf` parameters to edit. For best results, do not edit any parameters except those listed in the table.

**Table 2-2** Silent Installation Parameters

| Parameter Name  | Use               |
|-----------------|-------------------|
| FullMachineName | The machine name. |

**Table 2-2** Silent Installation Parameters

| Parameter Name  | Use   |
|-----------------|---|
| SuiteSpotUserID | The user ID used when running the default instance of the iPlanet Web Server.                           |
| SuiteSpotGroup  | The group the user running the default instance of the iPlanet Web Server belongs to.                   |
| ServerRoot      | The directory where you install the server.   |
| AdminPort       | The Administration Server port.   |
| HttpPort        | The port of the default iPlanet Web Server instance.  |
| HttpDocRoot     | The document root of the iPlanet Web Server instance.   |
| AdminSysUser    | The user ID used when running the Administration Server.  |
| AdminName       | The user name used to access to the Administration Server's administration screens.                     |
| AdminPassword   | The password used to access to the Administration Server's administration screens.                      |
| UgLdapUse       | Yes and No indicate whether you are using the LDAP Directory Server.                                    |
| UgLdapUrl       | The LDAP URL of the Directory Server you are using.   |
| UgLdapName      | The Bind DN of the Directory Server you are using.  |
| UgLdapPassword  | The Directory Server password.  |
| JRE_Dir         | If you are installing the JRE shipped with the iPlanet Web Server, the directory where it is installed. |
| USE_JDK         | Yes and No indicate whether you are using a JDK.  |
| JDK_DIR         | The directory where your JDK is installed.  |

## Using Uninstall on Unix

You can remove iPlanet Web Server from your computer by using the uninstall application.



---

**CAUTION** Though you can select individual subcomponents to uninstall, it is not recommended. The uninstaller only removes the parts of the code pertaining to the selected subcomponent, but does not update configuration files. Your server may not run if you uninstall individual subcomponents.

---

To remove your iPlanet Web Server:

1. Go to your server root and type `./uninstall`.

A list of iPlanet and Netscape servers currently installed in this location appears.

2. Find iPlanet Web Server in the list and type the number next to it at the prompt.

Note that uninstalling iPlanet Web Server automatically uninstalls the Administration Server, since it is an instance of iPlanet Web Server.

A list of installed iPlanet Web Server subcomponents appears.

3. Select all subcomponents and press Return.

The subcomponents are uninstalled and you return to the command prompt.

---

**NOTE** The uninstall program does not remove every server file. For example, it does not remove keys and certificates, configuration files, logs, ACL files or the document root.

---

If you installed another 4.x server (for example, Netscape Directory Server or Messaging Server) in the same directory as iPlanet Web Server, follow these steps when uninstalling:

1. Copy the uninstall script (`uninstall`) to another file, for example, `uninstslapd`.
2. Use `uninstall` to uninstall iPlanet Web Server.
3. Rename `uninstslapd` to `uninstall`.
4. Use `uninstall` to uninstall Directory Server 4.1.



# Installing iPlanet Web Server, FastTrack Edition on Windows NT

This chapter tells you how to install iPlanet Web Server. It contains the following sections:

- Installing on Windows NT
- Using Uninstall on Windows NT

## Installing on Windows NT

The following sections describe the installation of the iPlanet Web Server.

Any errors that occur when the server starts are logged in the Event Viewer. Once started, the server logs errors to the normal error log file.

Please keep the following warnings in mind:

- If you have previous versions of Netscape or iPlanet web servers installed, you must install your 4.x iPlanet Web Server in a different server root directory.
- If you have an iPlanet Web Server 4.1, Enterprise Edition installed, you must uninstall it before you can install the FastTrack Edition.
- If you have previous versions of Netscape or iPlanet web servers installed, shut down the Administration Server and Enterprise Server instances before installing iPlanet Web Server 4.1.
- If you install both Netscape Directory or Messaging Server and iPlanet Web Server on the same machine, during the web server installation when you are asked which version of libraries to install, always select those which have the most recent release dates, except for `system32\libplc.dll`.

- Do not install iPlanet Web Server on an NFS-mounted drive due to potential security and file locking restrictions on remote partitions.
- The server will unpack onto the drive designated by the `TEMP` environment variable. Make sure there is enough room on the device `TEMP` points to before starting the installation.

## Unpacking the Files

To get the iPlanet Web Server files and unpack them, follow these steps:

1. Download the file `f41eiu.exe` and save it in a temporary directory.
2. Double-click the file to extract the files and launch the installation program.

## Running setup.exe

Run the `setup.exe` program to install iPlanet Web Server.

1. Double-click the `setup.exe` file (if you downloaded the file, this happens automatically when you double-click the downloaded file).
2. The Welcome screen appears. After reading the Welcome screen, click Next.
3. The Software License Agreement appears. Click Yes to accept the license.
4. The Select Installation Type screen appears. Choose the kind of installation you want: Express, Typical or Custom.

Express installation is for users who have little experience or are evaluating the product. It makes assumptions about such things as port number and which components to install. This option is not recommended if you are using your server in a production environment.

Typical and Custom installation give you more options, and for this release do the same thing.

If you chose Express installation, the following settings are set automatically for you. If you want to have different values for these settings, choose Typical or Custom installation.

**Table 3-1** Express installation settings

| Installation Setting  | Values  |
|-----------------------|---|
| administration port   | 8888  |
| administration URL    | http:// <i>machine name:administration port</i> |
| HTTP port number      | 80  |
| document root         | <i>server_root/doc</i>                          |
| LDAP users and groups | not using                                       |
| JDK                   | none  |
| JRE                   | default JRE shipped with iPlanet Web Server     |
| subcomponents         | All default subcomponents installed             |

---

**CAUTION** Do not use Express Installation if you already have another web server running on port 80.

---

Click Next.

- The Location of Installation dialog box appears. The default location for the server files is `C:\Netscape\Server4`, where `C:` is the letter of the drive on which you are installing the server.

If you want to install iPlanet Web Server in a non-default location, use Browse to navigate to the folder you want, or type the name in the field. If you choose a folder that does not exist, the installation program asks if you want to create the folder.

Click Next.

- The Components to Install dialog box appears. Select iPlanet Web Server, FastTrack Edition from the list. Note that because the Administration Server is now an iPlanet Web Server instance, it is installed automatically when you install iPlanet Web Server, and is not a choice on this product list.

---

**NOTE** By default, the installer installs a default set of subcomponents. If you want to change the subcomponents you install, click Change and continue to Step 7.

---

If you did not change subcomponents or if you've completed your subcomponent selections, click Next to continue to Step 8.

7. If you clicked Change on the previous screen, the Select Sub-Components dialog box appears. You can select a subcomponent for installation by checking the box next to it. You can decline to install it by unchecking the box. If you later decide you want to install subcomponents you did not check, you can run the installer again and choose to install only the missing subcomponents. However, you cannot uninstall separate subcomponents once they are installed.

Click Continue when you are through choosing subcomponents.

By default, all subcomponents are installed. When you complete your selections, you return to the Components to Install dialog box (Step 6).

**Server Core.** Install this subcomponent to install the Administration Server and the first instance of iPlanet Web Server.

---

**CAUTION** You must install the Server Core subcomponent the first time you install iPlanet Web Server. If you install additional subcomponents later, you are not required to reinstall the Core subcomponent.

---

**Java Runtime Environment.** If you are installing Java and servlets support, you must have a JRE or a JDK. You can install the supplied JRE subcomponent or use a JDK already installed on your system. If you want to use your own JDK, you'll need to supply the path to it later in the installation. For more information, see "Installing a Java Developer's Kit," on page 18.

**Java and Servlets.** Install this subcomponent if you are planning to use Java and servlets.

You need a JRE or JDK to use iPlanet Web Server's Java support. If you do not have one installed on your system, you should install the JRE provided with iPlanet Web Server (see the previous subcomponent) or install a JDK.

8. The iPlanet Web Server Administration Server Authentication dialog box appears. Type the user name for Administration Server access; the default is admin. Type the Administration Server access password; type it again for verification. Click Next.

If you are using LDAP-based authentication, you must make sure that this user has access permissions to the LDAP server to perform user/group management tasks.

If you chose Express Installation, skip to Step 13.

9. The Web Server Administration Server Port Selection dialog box appears. Type the port number the Administration Server runs on. This can be any number from 1 to 65535. The URL for administration access is displayed. You might want to make a note of this URL. The default port is 8888.

For more information on ports, see “Choosing Unique Port Numbers” on page 16.

Click Next.

10. The Default Web Server dialog box appears. A default instance of iPlanet Web Server is installed automatically.

Type a port number for the default instance of your iPlanet Web Server. This port should be different than the Administration Server port. If you use a port other than the default port (port 80), the URL used to gain access to your home page will change. For example, if your computer is called `www.iplanet.com` and you choose port 9753, your server’s URL will be

`http://www.iplanet.com:9753/`

---

**CAUTION** Do not use port 80 if you already have another web server running on port 80.

---

For more information on ports, see “Choosing Unique Port Numbers” on page 16.

Type the path for the default server’s primary document directory, where your server’s content files (the images, HTML documents and data you want to present to users accessing the server) will reside. The default is `C:/server_root/docs`. Click Browse to navigate your file system.

11. The Using LDAP for Users and Group Administration dialog box appears. If you want to use LDAP, click the checkbox and specify the LDAP URL in the format `ldap://hostname:port/base DN`. For example,  
`ldap://iplanet.com:389/o=siroe.com`.

You must also enter the bind DN (for example, `cn=Directory Manager`) and the directory server password.

If you do not want to use LDAP, leave the checkbox unchecked.

Click Next.

12. If you are installing the Java and Servlets subcomponent (installed by default), the JDK Configuration dialog box appears. If you are using Java on your iPlanet Web Server, you must have a Java Runtime Environment (JRE) or a Java Development Kit (JDK) installed. You can use the JRE included with iPlanet Web Server (for more information see Step 7) or you can use a custom JDK that already resides on your system.

To use your own JDK, click the Use Custom Java Development Kit checkbox and enter the absolute path to the folder where you installed the JDK on your system. If you want to use a Library path or Classpath that is different than the default for your JDK, enter a different path here.

13. The Configuration Summary dialog box appears. This dialog box contains information about the settings for your iPlanet Web Server and Administration Server. It also contains a list of the iPlanet Web Server components you selected for installation.

This dialog box gives you the opportunity to review your settings before the installation is complete. If they are correct, click Install. If you want to change some of the settings, click Back and correct the information.

The server files are installed. The Setup Complete dialog box appears.

Before you can use your administration and web servers, you must either start them from the Control Panel's Services item, or reboot your machine to start them automatically.

---

**NOTE** You should not cancel the installation process while the files are being copied. If you do, you will have a partial installation you need to clean up. If an uninstaller for iPlanet Web Server exists, use it to uninstall the portion of iPlanet Web Server you installed. If the uninstaller does not exist, manually delete all the files that are in the server root.

---



14. Click Finish.
15. Restart your machine or use the Services Control Panel to start the iPlanet Web Server.
16. To configure your iPlanet Web Server, use the URL:  
`http://server_name:administration_port`

For example: `http://iplanet:8888`

Enter your administration user name and password to administer the server.

You can now configure your server. For more information, see the *iPlanet Web Server Administrator's Guide*.

## Using Uninstall on Windows NT

You can remove the iPlanet Web Server from your computer by using the uninstall application. The uninstall application determines which servers are installed on your machine and allows you to choose which of those servers you want to delete.

---

**CAUTION** Though you can select individual subcomponents to uninstall, it is not recommended. The uninstaller only removes the parts of the code pertaining to the selected subcomponent, but does not update configuration files. Your server may not run if you uninstall individual subcomponents.

---

To remove your iPlanet Web Server:

1. Go to your server root and double-click on the program `uninst.exe`.
2. The iPlanet Uninstall window appears. This window lists all the iPlanet and Netscape servers installed in this directory. Click the checkbox next to iPlanet Web Server, FastTrack Edition and click Uninstall. Note that uninstalling iPlanet Web Server automatically uninstalls the Administration Server, since it is an instance of iPlanet Web Server.
3. The uninstall program uninstalls the server. You see a window showing the progress of the uninstall.
4. When the uninstall is complete, a message appears saying that the configuration files have not been deleted, and that you should rename them before reinstalling the server. Click OK to continue.

If you have special settings in your configuration files, renaming the files is one way you can still access them after reinstalling the server. If you don't rename the files, you cannot reinstall the server.

5. Restart your system. You must reboot before reinstalling iPlanet Web Server.

During the uninstall, you may see an error "There was an internal error and one of the windows you were using has been closed. It is recommended that you save your work and close all your programs and then restart your computer." If you receive this message, continue with the uninstall. Since you restart as part of the uninstall process, you do not need to do a separate restart.

---

**NOTE** The uninstall program does not remove every server file. For example, it does not remove keys and certificates, configuration files, logs, ACL files or the document root.

---

If you install another 4.x server (for example, Netscape Directory Server or Messaging Server) on the same machine as iPlanet Web Server, you should have no problems uninstalling any server if you install the servers in the same directory. If you install the servers in different directories, you need to uninstall iPlanet Web Server first, and preserve a copy of a DLL file before uninstalling, as shown in the following steps:

1. Copy `NSLDAP32V40.DLL` to a temporary directory.
2. Uninstall iPlanet Web Server.
3. Copy `NSLDAP32V40.DLL` back to the directory where Directory Server is installed.
4. Uninstall Directory Server.

# Installing iPlanet Web Server, FastTrack Edition on Linux

This chapter tells you how to install iPlanet Web Server. It contains the following sections:

- Installing on Linux
- Using Silent Installation
- Using Uninstall on Linux

## Installing on Linux

The following sections describe the installation of the iPlanet Web Server.

---

**CAUTION** Do not install iPlanet Web Server on an NFS-mounted drive due to potential security and file locking restrictions on remote partitions.

---

## Logging In as the Correct User

Before you install the server, you must log in as `root`, unless you meet both of these conditions:

- You plan to install the server on a port greater than 1024.
- The location where you plan to install the server (the server root directory) is writable with your non-root login.

If you meet both conditions, you do not need to log in as `root` to install the server; instead log in as the user account that the Administration Server will use. However, you may still prefer to log in as `root`, even though you meet the conditions.

---

**CAUTION** You must log in as `root` if you are planning to use Express installation.

---

## Unpacking the Files

To get the iPlanet Web Server files and unpack them, follow these steps:

1. Download the file from `http://www.ipplanet.com` and save it in a temporary directory.

---

**NOTE** Untarring the file will cause the permissions of the destination directory to be modified so that applications can no longer write files to it. To avoid this problem, untar the file in a directory where you can modify the permissions. For example, instead of `/tmp`, use a subdirectory under `/tmp`, for example, `/tmp/iwsinstall`.

---

2. Change to the directory on your Linux machine where you copied the file.

Unpack the `.gz` file by typing `gunzip filename.tar.gz`. The file name is in the format:

```
fasttrack-4.1-security-internationalization.platform.tar.gz
```

For example:

```
fasttrack-4.1-domestic-us.i686-intel-linux.tar.gz
```

3. Untar the unzipped file by typing `tar -xvf filename.tar`.

This command unpacks the server files and creates a temporary directory structure under the current directory. Unpacking the file may take a little time. When the files are unpacked, you see an Enterprise directory, and three files `LICENSE.txt`, `README.txt`, `setup`, and `setup.inf`.

## Running Setup

You run the setup program to install iPlanet Web Server.

During the installation process, you have the choice of three kinds of installation: Express, Typical, or Custom. Most users should choose Typical or Custom (they are identical). Typical or Custom gives you more flexibility in the components you can install and the settings you can configure.

Express installation is for users who have little experience or are evaluating the product. It makes assumptions about such things as port number and which components to install.

When running the installer, you can use the following commands:

- Press the Enter key to accept defaults specified in brackets (for example [All]).
- Press CTRL+b to return to a previous screen (note that this sequence does not work on all screens).
- Press CTRL+c to cancel the installation program.
- Enter comma-separated lists of numbers when you want to select multiple items (for example, 1, 2, 3).

---

**NOTE** For Express installation, you must be logged in as root when running setup.

---

### Typical or Custom Installation

Most users should install the Typical or Custom installation.

To run setup, follow these steps:

1. If you are not in the directory already, change to the directory where you unpacked the file.
2. Type `./setup` to start the server installation.

If you aren't logged in as the `root` user (superuser), or if you don't have sufficient write permissions, you'll get one or more error messages.

A welcome screen appears.

3. Press Enter to continue with the installation.

4. Choose whether you accept the software license agreement by typing Yes to accept, or No to decline. If you have not yet read the license agreement, cancel out of the installation and read the file `LICENSE.txt` that is in the same directory as the `setup` program
5. Choose Typical or Custom.  
Press Enter.
6. Type a server root directory or accept the default (`/usr/netscape/server4`).  
This directory is where the server files and directory structure will be installed.  
You need to run the server as a user that has write access to this directory, for example, the directory owner.
7. Choose all components.  
Press Enter.
8. Choose the iPlanet Web Server subcomponents to install.

If you do not install a subcomponent and later decide you want to use it, you can run the installer again to install just the missing subcomponent. However, you cannot uninstall individual subcomponents once they are installed.

By default, all subcomponents are installed.

The subcomponents you can choose to install are described in the following numbered sections.

#### 1. Server Core

Installs Administration Server and the first instance of iPlanet Web Server.

---

**CAUTION** You must install the Server Core subcomponent the first time you install iPlanet Web Server. If you install additional subcomponents later, you are not required to reinstall the Core subcomponent.

---

#### 2. Java Runtime Environment

If you are planning to use Java, you must have a Java Runtime Environment (JRE) or a Java Developer's Kit (JDK). You can install the provided JRE, or supply your own JDK. For more information, see "Installing a Java Developer's Kit," on page 18.

### 3. Java Support

Install this subcomponent if you are planning to use Java servlets or JSPs.

You also need a JRE or JDK to use iPlanet Web Server's Java support. Install the JRE provided with iPlanet Web Server (see the previous subcomponent) or install a JDK.

9. Enter the machine name or accept the default.
10. Enter the Linux user and group names to use when running the default instance of iPlanet Web Server.
11. Enter the Linux user name to use when running the Administration Server.

In most cases this user is `root`.

12. Enter the Administration Server user name and password to use for authentication. You are asked to enter your password twice.

This user is not a Linux user, but a user name and password in iPlanet Web Server. If you are using a Netscape Directory Server, you must make sure that the Administration Server user exists in the Directory Server, and that it has access permissions to the Directory Server to perform user and group management tasks.

13. Type the Administration Server port number or accept the default of 8888.

Make sure you remember the port number for the Administration Server.

For the most flexibility, choose a port number above 1024. If you want to use a port number lower than 1024 for your Administration Server, you must be logged on as `root` to start the server. Do not use a port that is already in use.

This iPlanet Web Server Administration Server is not the same as the Netscape Console, or the Administration Server shipped with other iPlanet/Netscape servers.

For more information on ports, see "Choosing Unique Port Numbers" on page 16.

14. Type the port number of iPlanet Web Server. The default is 80. This port should be different than the Administration Server port. Unless you are installing as `root`, the port must be within the stated range (1024 to 65535). If you are installing as `root` you can use port numbers below 1024.

If you use a port other than the default port (port 80), the URL used to gain access to your home page will change. For example, if your computer is called `www.iplanet.com` and you choose port 9753, your server's URL will be `http://www.iplanet.com:9753/`

---

**CAUTION** Do not use port 80 if you already have another web server running on port 80.

---

For more information on ports, see “Choosing Unique Port Numbers” on page 16.

15. Specify whether you are using an LDAP-based directory server (enter Yes or No).

You must use an LDAP directory server if you want to use user and group functionality for access control in iPlanet Web Server.

If you use an LDAP directory server, enter following:

- The LDAP URL in the format `ldap://hotname:port/base DN`. For example, `ldap://iplanet.com:389/o=siroe.com`.
  - The bind DN (for example, `cn=Directory Manager`) and the directory server password.
16. Type the root directory where your server's content files (the images, HTML documents and data you want to present to users accessing the server) will reside. The default is `server_root/docs`.
17. If you want to use your own JDK, enter Yes.
- If you are installing Java support, you must have a JRE or a JDK. You can install the supplied JRE subcomponent or use a JDK already installed on your system. For more information, see “Installing a Java Developer's Kit,” on page 18.
18. If you are installing Java support, and you either did not choose to install the provided JRE, or you chose to use your own JDK, enter the absolute path to the directory where you installed the JDK on your system.

The JDK must already exist in the specified directory.



If the JDK libraries and CLASSPATH are stored in the default directories below the JDK directory (`/jre/lib` and `/lib`, respectively), press Enter at the JDK LIBPATH and JDK CLASSPATH prompts. If the libraries and CLASSPATH are stored in a different place on your system, enter the pathnames. On most systems you will not have to enter pathnames at these prompts.

19. After the installation program extracts and installs the iPlanet Web Server components, press Enter.
20. Go to the `https-adminserv` directory under your server root directory (for example `/usr/netscape/server4`) and start the Administration Server by typing `./start`. You can also type `./startconsole` in the server root directory.

If you do not have Netscape Console installed, `startconsole` starts Administration Server and launches a browser to the Administration Server administration pages. If you have a Netscape Console installed, `startconsole` starts the console. For information about registering your iPlanet Web Server with the Netscape Console, see “Accessing iPlanet Web Server from the Netscape Console,” on page 20.

21. To configure your iPlanet Web Server, use the URL:

`http://server_name:administration_port`

For example: `http://iplanet:8888`

Enter your administration user name and password.

You can now configure your iPlanet Web Server. For more information, see the *iPlanet Web Server Administrator's Guide*.

## Express Installation

Express installation is for users who have little experience or are evaluating the product. It makes assumptions about such things as port number and which components to install.

The following table lists the assumptions made by the Express installation. If you would like to use different installation settings, use Typical or Custom installation.

**Table 4-1** Express installation settings

| Installation Setting     | Value   |
|--------------------------|---|
| administration port      | 8888  |
| administration URL       | http:// <i>machine name:administration port</i> |
| HTTP port number         | 80  |
| document root            | <i>server_root/doc</i>                          |
| Linux user to run server | root  |
| LDAP users and groups    | not using                                       |
| JDK                      | none  |
| JRE                      | default JRE shipped with iPlanet Web Server     |
| subcomponents            | All subcomponents installed                     |

After installing, you can configure the server to use LDAP users and groups, and to use a JDK. For more information on how to make these changes, see the *iPlanet Web Server Administrator's Guide*.

---

**CAUTION** Do not use Express Installation if you already have another web server running on port 80.

---



---

**CAUTION** You must log in as `root` to use Express installation.

---

To run setup, follow these steps:

1. If you are not in the directory already, change to the directory where you unpacked the file.
2. Type `./setup` to start the server installation.  
A welcome screen appears.
3. Press Enter to continue with the installation.

4. Choose whether you accept the software license agreement by entering Yes to accept, or No to decline. If you have not yet read the license agreement, cancel out of the installation and read the file `LICENSE.txt` that is in the same directory as the `setup` program
5. Choose Express and press Enter.
6. Type a server root directory or accept the default (`/usr/netscape/server4`).  
This directory is where the server files and directory structure will be installed.  
You need to run the server as `root`, and `root` must have write access to this directory, for example, the directory owner.
7. Choose all components.  
Press Enter.
8. Enter the Linux user and group names to use when running the default instance of iPlanet Web Server.  
For Express installation, this user must be `root`. The group must be the group to which `root` belongs.
9. Enter the Linux user name to use when running the Administration Server.  
In most cases, this user is `root`.
10. Enter the Administration Server user name and password to use for authentication. You are asked to enter your password twice.  
This user is not a Linux user, but a user name and password in iPlanet Web Server. If you are using a Netscape Directory Server, you must make sure that the Administration Server user exists in the Directory Server, and that it has access permissions to the Directory Server to perform user and group management tasks.
11. After the installation program extracts and installs the iPlanet Web Server components, press Enter.
12. Go to the `https-adminserv` directory under your server root directory (for example `/usr/netscape/server4`) and start Administration Server by typing `./start`. You can also type `./startconsole` in the server root directory.  
If you do not have Netscape Console installed, `startconsole` starts Administration Server and launches a browser to the Administration Server administration pages. If you have a Netscape Console installed, `startconsole`

starts the console. For information about registering your iPlanet Web Server with the Netscape Console, see “Accessing iPlanet Web Server from the Netscape Console,” on page 20.

13. To configure your iPlanet Web Server, use the URL:

`http://server_name:administration_port`

For example: `http://iplanet:8888`

Enter your administration user name and password.

You can now configure your iPlanet Web Server. For more information, see the *iPlanet Web Server Administrator's Guide*.

## Using Silent Installation

If you want to install several iPlanet Web Servers, you can use silent installation to create a file of responses to the setup program's prompts. You can then edit the file, `install.inf`, and use it to install future iPlanet Web Server installations.

Silent installation works best when you use the Typical installation and your installations are all similar.

---

**CAUTION** The `install.inf` file contains the password used to log on to the Administration Server. The password is not encrypted; it is in plain text. If you use silent installation, be sure and delete the `install.inf` file once you are through with it.

---

To use silent installation, follow these steps:

1. Run setup with the `-k` option, which creates a file called `install.inf` that contains all your responses to the installer's prompts. At the command prompt, type:  

```
./setup -k
```
2. Answer the installer prompts and install iPlanet Web Server.
3. When the server is installed, go to the `server_root/setup` directory, where you'll find the `install.inf` file.
4. Copy the `install.inf` file to the directory where you will run setup to install your next iPlanet Web Serve.



The following table shows some useful `install.inf` parameters to edit. For best results, do not edit any parameters except those listed in the table.

**Table 4-2** Silent Installation Parameters

| Parameter Name  | Use   |
|-----------------|---|
| FullMachineName | The machine name.   |
| SuiteSpotUserID | The user ID used when running the default instance of the iPlanet Web Server.                           |
| SuiteSpotGroup  | The group the user running the default instance of the iPlanet Web Server belongs to.                   |
| ServerRoot      | The directory where you install the server.   |
| AdminPort       | The Administration Server port.   |
| HttpPort        | The port of the default iPlanet Web Server instance.  |
| HttpDocRoot     | The document root of the iPlanet Web Server instance.   |
| AdminSysUser    | The user ID used when running the Administration Server.  |
| AdminName       | The user name used to access to the Administration Server's administration screens.                     |
| AdminPassword   | The password used to access to the Administration Server's administration screens.                      |
| UgLdapUse       | Yes and No indicate whether you are using the LDAP Directory Server.                                    |
| UgLdapUrl       | The LDAP URL of the Directory Server you are using.   |
| UgLdapName      | The Bind DN of the Directory Server you are using.  |
| UgLdapPassword  | The Directory Server password.  |
| JRE_Dir         | If you are installing the JRE shipped with the iPlanet Web Server, the directory where it is installed. |
| USE_JDK         | Yes and No indicate whether you are using a JDK.  |
| JDK_DIR         | The directory where your JDK is installed.  |

## Using Uninstall on Linux

You can remove iPlanet Web Server from your computer by using the uninstall application.

---

**CAUTION** Though you can select individual subcomponents to uninstall, it is not recommended. The uninstaller only removes the parts of the code pertaining to the selected subcomponent, but does not update configuration files. Your server may not run if you uninstall individual subcomponents.

---

To remove your iPlanet Web Server:

1. Go to your server root and type `./uninstall`.  
A list of iPlanet and Netscape servers currently installed in this location appears.
2. Find iPlanet Web Server in the list and type the number next to it at the prompt.  
Note that uninstalling iPlanet Web Server automatically uninstalls the Administration Server, since it is an instance of iPlanet Web Server.  
A list of installed iPlanet Web Server subcomponents appears.
3. Select all subcomponents and press Return.  
The subcomponents are uninstalled and you return to the command prompt.

---

**NOTE** The uninstall program does not remove every server file. For example, it does not remove keys and certificates, configuration files, logs, ACL files or the document root.

---

If you installed another 4.x server (for example, Netscape Directory Server or Messaging Server) in the same directory as iPlanet Web Server, follow these steps when uninstalling:

1. Copy the uninstall script (`uninstall`) to another file, for example, `uninstslapd`.
2. Use `uninstall` to uninstall iPlanet Web Server.
3. Rename `uninstslapd` to `uninstall`.
4. Use `uninstall` to uninstall Directory Server 4.1.





# Troubleshooting Your Installation

This chapter contains information on troubleshooting Windows NT, Unix and Linux installations of iPlanet Web Server. It contains the following sections:

- Troubleshooting All Platforms
- Troubleshooting Unix and Linux
- Troubleshooting Windows NT

## Troubleshooting All Platforms

This section describes the most common installation problems that occur across multiple platforms and explains how to solve them.

**Clients can't locate the server.** First, try using the hostname. If that doesn't work, use the fully qualified name (such as `www.machine_name.domain.com`), and make sure the server is listed in DNS. If that doesn't work, use the IP address.

**The port is in use.** Most likely, you didn't shut down a server before you migrated the settings from a previous version. Shut down the old server, then manually start the new one.

The port might also be used by another installed server. Make sure the port you've chosen isn't already being used by another server.

**I've forgotten the administration user name and password.** In the `https-adminserv/config` directory in your server root directory, edit the `admpw` text file, which contains a line of text similar to the following:

```
admin:ln0VeixulqkmU
```

The text before the colon is the administration user name (in this case, `admin`); the text following the colon is the password, which is encrypted.

Delete everything after the colon and save the file. Shut down the Administration Server and restart it. When prompted for the administration password, leave the password field blank. You should be able to access the Administration Server now. Be sure to create a new password for the Administration Server.

**I've installed iPlanet Web Server, but the configuration pages do not have all the tabs and configuration pages shown in the documentation.** If you did not choose to install an iPlanet Web Server component, it will not appear in your Server Manager forms. For example, if you did not choose to install the Java component, the Servlets tab will not appear on the Server Manager page. If you did not install all the components you wanted during your initial installation, you can rerun the installer, choosing any components you didn't install already.

**I installed Java Server Support, but I do not have a JDK or JRE installed.** In order for Java support to work, you must have a JRE or JDK installed. If not, your server may not start, or may start but generate errors when you try to run Java. To correct this problem, run the iPlanet Web Server installation program again, and choose to install the JRE, or install a JDK and point your server to it using the Configure JRE/JDK Paths page on the Servlets tab. For more information on JRE and JDK, see "Installing a Java Developer's Kit" on page 18.

**I received an error during installation and the installation did not complete.** Sometimes this problem happens if you do not have enough disk space on your system. In that case, you simply need to free up more disk space and run the installer again. If this error occurred for other reasons you may have to clean up the partial installation before you can attempt to install again. Always run the uninstall program if the installer got far enough to produce one. After running the uninstall program, delete any server files that remain. On Windows NT you may also need to clean up the registry entries.

## Troubleshooting Unix and Linux

This section describes troubleshooting problems that are Unix or Linux specific.

**The server is slow and transfers take too long.** If you log accesses through `SYSLOG`, you might encounter reduced performance. Switch to using the server's error log files instead.

The server machine might need more RAM. Also, other applications running on the computer might be using CPU cycles, degrading server performance.

# Troubleshooting Windows NT

This section describes troubleshooting problems that are Windows NT specific.

## **The installation could not proceed.**

**Error: Can't open file for writing.**

**Can't write to file filename.** The error was error code 32

Make sure you don't already have a web server running on your system.

This error message might also appear if you partially completed the installation so that the executable was running and you're trying to install the server again. In the Control Panel Services dialog box, shut down all the web server services, uninstall as necessary, and reinstall the server.

## **The following message appeared when installing iPlanet Web Server:**

**confhttp: LODCTR returned error code 112.** The LODCTR utility is used to set up performance monitoring-related keys in your Windows NT registry. Error 112 means that it ran out of space either on your hard disk or in the registry. You should first make sure you have plenty of free space on your hard disk; if you do, then Windows NT may have filled up its registry. You can check this by going to your control panels, opening System, clicking the Performance tab, and clicking Change in the Virtual Memory section. The window that comes up shows the current registry size and the maximum registry size; if current is near maximum, then raise the maximum setting, reboot, and try installing iPlanet Web Server again.

**I couldn't access the server after installing it and restarting.** You need to have a static IP address for iPlanet Web Server to work properly. If you are using DHCP, the installation process writes the IP address used by your system at the time of installation to `magnus.conf`. If your IP address changes, you will not be able to access your server. To get your server to work temporarily, edit `magnus.conf` so that the address specified is your current IP address. To find your IP address, type `ipconfig` at the command line. The permanent fix is to get a static IP address.



# Index

## C

- CNAME, DNS and, 14
- Communicator, installing, 17
- Compaq Tru64 Unix, version, 11
- Console, iPlanet Web Server integration with, 20
- core component, 25, 46

## D

- Directory Server installing, 18
- documentation, related, 7
- dynamic IP address, 59

## H

- hardware requirements
  - Linux, 13
  - Unix, 12
  - Windows NT, 12
- HP-UX, version, 11

## I

- IBM AIX, version, 11
- installing

- Communicator, 17
  - core component, 25, 46
  - Directory Server, 18
  - from a script, 30, 52
- JDK, 18
- JRE, 25, 38, 46
- Linux, 43
  - express, 49
  - typical or custom, 45
  - uninstall, 54
- Netscape Console, 18
- preparation for, 9
- Unix, 21
  - express, 27
  - typical or custom, 23
  - uninstall, 32
- user account needed for, 22, 43
- Windows NT, 35
  - uninstall, 41

## J

- JDK
  - obtaining, 18
  - required version, 19
- JRE component, 25, 38, 46

## L

- Linux installation, 43
- Linux user accounts, 14
- Linux, version, 11
- LocalSystem user account, 16

## M

- manual conventions, 6
- manuals, online versions, 7

## N

- Netscape Communicator, 17
- nobody user account, 15

## O

- online help, 7
- online versions of manuals, 7

## P

- platform requirements, 11
- port in use error message, 57
- port numbers, 16

## R

- Red Hat Linux, version, 11

## S

- server name
  - aliases, 14
  - changing, 14
  - CNAME and, 14
- server user account, 14
- servers, removing, 32, 41, 54
- silent installation, 30, 52
- slow performance on Unix, 58
- SNMP, Unix and Linux user for, 15
- Sun Solaris, version, 11

## T

- technical requirements, 14

## U

- uninstall, 54
  - Linux, 54
  - Unix, 32
  - Windows NT, 41
- Unix installation, 21
- Unix user accounts, 14
- user accounts
  - LocalSystem, 16
  - nobody, 15
  - Windows NT, 15

## W

- Windows NT installation, 35
- Windows NT, version, 11